

Knowledge Management Governance

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Introduction

There are many barriers to implementation of knowledge management (KM) strategies. These include a lack of time and financial resources allocated to sharing knowledge, a lack of organizational understanding of the philosophy and the benefits of KM and a lack of skills in KM. However survey data shows that greatest acknowledged obstacle to the implementation of a KM strategy is the management culture of the organization (Chase, 1997; Zyngier, 2001). These obstacles reveal a problem in the implementation of an organizational KM strategy. The problem lies not in the implementation of a given strategy *per se*, but in the lack of governance of that strategy.

The governance process is a framework of authority that ensures the delivery of anticipated or predicted benefits of a service or process (Farrar, 2001). The operationalization of that strategy and is therefore executed in an authorized and regulated manner. Governance mechanisms must be invoked to guide both the initial implementation and the ongoing control and authority over of KM strategies. A governance framework will provide management of risk, review mechanisms and fiscal accountability in leveraging tacit knowledge and sharing explicit knowledge within an organization. Knowledge is therefore not a series of artefacts to be managed, but rather this article identifies the processes of management that are subject to governance. KM governance centres the decision-making authority as an executive framework to deliver the expected benefits of the strategy and for these benefits to be delivered in a controlled manner. This is achieved by the establishment of checks and balances in the implementation of the strategy. It ensures that evaluation measures feed back that enables deliberate adjustment of the delivery of the strategy and ensures that needs and expectations are being met. If the needs and expectations of the organization cannot be met then the governance process should then be able to establish and manage the cause.

The first part of this article discusses KM Strategy development and the shows the origins of KM governance in the concept of the practice of governance principles and practices. The second part will discuss the central issues in KM governance being authority, evaluation, measurement and risk management. The third part will suggest a structure or model for KM governance explaining this operates in an organizational context and suggests future trends for this research.

Background

The role of leadership

Executive management leads and establishes the culture and consequent ability of an organization to capture, share, and manage its knowledge. In the past leaders in

organizations were empowered to order changes and then all that was required of the organization was to implement the plan (Bridges & Mitchell, 2000, 36). The culture of an organization is developed by the structure, by the attitude and example of management. Krogh, Ichijo, and Nonaka, (2000) describe how effective management and support of knowledge creation depends on the physical, virtual and emotional context in which it is manifest. Where there is a strong commitment at the level of executive management to change organizational culture an organization is able to begin to create the values that lead to knowledge sharing across boundaries (O'Dell, Grayson and Essaides, 1998; Hackett, 2000). Currently interpretations of knowledge management leadership (Rumizen, 2002; Tiwana, 2002) endow the leader with the responsibility to direct, to conduct or to guide functions in the implementation of such a strategy.

The terms knowledge champion, leader or sponsor are used interchangeably in the knowledge management literature. The terms variously indicate a person who initiates a KM strategy, or one who supports and promotes the initiation of such a strategy. Therefore the person or persons responsible for the implementation of a KM strategy may have the sole responsibility for the development and implementation of a KM strategy. This cannot ensure buy-in from the organization as a whole. These risks are revealed as found in Australian and international surveys that have disclosed some of the obstacles to KM strategies (Chase, 1997; Davis, McAdams, Dixon, Orlikowski, & Leonard, 1998; DeLong & Fahey, 2000; Ewyk, 1998; Fang, Lin, Hsiao, Huang, & Fang, 2002; Hackett, 2000; IC² Institute at the University of Texas at Austin, 2001; McAdam & Reid, 2001; Zyngier, 2001).

KM Strategy development

KM literature describes many approaches to the development of a strategy or a plan to be implemented as a means of achieving organizational objectives of sharing tacit and explicit knowledge within the organization. Strategies are usually grounded in a theoretical methodology that will provide the greatest leverage in implementation (Zack, 1999) with each meeting perceived needs in the organization. There are two categories of strategies – deliberate and emergent strategies. Deliberate strategies must be articulated in a plan that must then be implemented. Emergent strategies are those that emerge in the organization as part of the process of learning what works well and what does not. Mintzberg (1994) suggests that strategic planning processes fail when they are not constructed to understand, internalise and synthesise: that is to learn from the successes or failures of the strategic process as is implemented. In this sense strategic planning would be a static and inviolate process. This is where the concepts of strategic approaches to KM are vulnerable unless the strategy is conceived of as a learning or evolutionary process. This being so then a KM strategy or plan is not rigid but is an operational process that will enable learning and can evolve to take into account new and emerging environments within and outside the organization. KM obstacles lie not in the plan but in the processes that surround the planning, implementation, feedback and ongoing development of the plan. These processes are governance processes.

Governance principles and practice

There are a number of current contending uses of the term governance. In this article governance refers to the governance processes of control or regulation within companies, interpreted as the implementation of authority through a framework that

ensures delivery of anticipated or predicted benefits of a service or process, in an authorised and regulated manner (Weill & Woodham, 2003). This approach forms a context for analysis, management, risk management and the ongoing development of strategies to manage organizational knowledge. It is also a means of developing measures of the effectiveness of those strategies. Governance will be affected by the composition of the membership of the governing body, the personal characteristics and history of the individuals involved and the visions and principles enshrined in organizational structures and processes.

There are two main theories in the governance literature that relate to the purpose of the corporation and whose interests it should serve (Farrar, 2001; Van den Berghe & De Ridder, 1999). These are

1. The shareholder model where the primacy of serving shareholder interest and value is the underlying philosophy or driver of governance, cost minimisation and profit maximisation are paramount, and
2. The stakeholders model where the primacy interest of all stakeholders including organization's owners or shareholders, the creditors, employees and the local communities in which the firm exists, creditors, employees and the communities in which the organization exists.

The stakeholder or consultative model may be considered a less managerially neat option due to the need to consult and reconcile conflicting interests however where decisions are made and endorsed by the majority of stakeholders there is greater acceptance of decisions and activity around those decisions (Vinten, 2000).

In the stakeholder model a greater contribution decision-making is expected at all levels. Internal stakeholder governance processes are not merely good management processes but can also be viewed in terms of ensuring that a wide range of organizational needs are represented and being met. While to-date governance principles have rarely been applied to other managerial strategies, this approach is seen in the work of the IT Governance Institute, & COBIT Steering Committee (2001; 2000) and British Standards Institution (2002). The notion of IS/IT governance activity is already apparent as a subset of governance. This framework similarly facilitates the provision of feedback mechanisms within other managerial strategies to serve as a model of continuous improvement in organizational structures.

Responsiveness to stakeholder interests enhances the capacity of the organization to identify and analyse a greater range of risks and to better deliver services or products.

Governance is at the centre of the decision-making authority. It is a framework to deliver the expected benefits of investments in a controlled manner, through the establishment of checks and balances in the mode of service delivery. It ensures that evaluation feeds back into the service delivery strategy, and that stakeholder needs and expectations are being met. This approach is echoed by Galliers' (1999) socio-technical approach to business and IS strategy formations and the management of organizational transformation that takes into account the organizational environment, business strategies and processes and required infrastructure. He sees that implementation requires the allocation of responsibilities with clearly defined objectives, timescales and performance measures. This is paralleled by on-going evaluation and review, including long term planning and perspective and the recognition and accounting for consequential or emergent strategies.

Weill and Woodham (2002) propose that the design of governance mechanisms are constructed in the context of the competing operational, structural and infrastructural forces that operate within a business and in harmony with organizational objectives. An governance framework must understand how decisions are made in key domains. These domains are principles, infrastructure strategies, architecture and investment and prioritisation. Thus, governance will concentrate the relationships and processes that develop and maintain control over the infrastructure and human resources utilised in order to deliver the service to the organization. It provides check and balance mechanisms that enable the decision-making processes and results in IT contributing as a value adding function in service of the enterprise.

Emphasis on strategy, risk-management, delivering financial value and performance measurement indicates the ongoing management of best practice. Applied to organizational IT, it is suggested that 'at the heart of the governance responsibilities of setting strategy, managing risks, delivering value and measuring performance, are the stakeholders values, which drive the enterprise and IT strategy' (IT Governance Institute, 2001, 10). This does not a linear mechanism but that is intended to feedback both the positive and negative aspects of performance. These response mechanisms will in turn moderate and improve practice in addition to responding to the effects of internal and external in the organizational environment.

Focus on KM governance

The delivery of a KM strategy in an organization provides services to, and exists to meet the needs for the creation, dissemination and utilization of tacit and explicit knowledge to fulfil organizational objectives. How this function is fulfilled is reflected in the timeliness of service delivery and the satisfaction levels of the internal and also, potentially, of external clients. The processes and principles that act as a framework for examination, regulation, supervision and revision of KM strategies are termed KM governance. Wiig (1997) described governance functions as those of monitoring and facilitation of knowledge related activities within the implementation process. There is little in the literature that separates descriptions of strategy implementation from the authority framework that governance provides. Knowledge management governance processes determine organizational knowledge access conditions, quality maintenance, decision making processes and means of resolving KM obstacles.

Authority

KM governance can meet process objectives through the development of an effective understanding of the potential of KM within the organization; an effective understanding of the role of KM within the organization and the alignment of KM with the value proposition and strategy of the organization. Finally the regular review, approval and monitoring of KM investments in infrastructure and in human resources. KM governance centres the decision-making authority, an executive framework to deliver the expected benefits of the strategy. This can then be delivered in a controlled manner, through the establishment of evaluation, measurement and risk management in service delivery. It ensures that these processes feed back into the service delivery strategy, and that all stakeholder needs and expectations are being met. If they cannot be met, then the governance process will be able to establish the reason and resolution.

Risk Management

Governance processes manage the risks of KM to acknowledge and challenge the cultural issues, structural obstacles and other relevant issues as they arise during the implementation and ongoing operation of the strategy. The management of these risks assisting in their resolution and strengthens strategies to manage knowledge within the organization. The need for risk management in KM was formally indicated in 2001 (Standards Australia) with the need to identify assets, the risks and controls associated with the implementation of strategy. Obstacles to the effective management of organizational knowledge include a management culture in the organisation that hinders KM, with concomitant change management issues. Additionally the philosophy of knowledge management is often inadequately understood in the organisation and conflicts of organizational priorities are problematic for the development and initiation of a KM strategy. For many organizations, the development of criterion for knowledge collection is difficult. (Zyngier, 2001; Chase, 1997)

Risk management is a proactive strategy of analysis and anticipation of risks to the KM strategy before they arise (Standards Australia. 2003). By engaging with the risks it becomes possible to develop a means of risk resolution. The resolution may require organizational change management, the provision of additional financial or infrastructural support, or a realignment of the original strategy in light of unforeseen or emergent activity within the organization. Risk management requires regular evaluation of the strategy and the organization that it serves.

Evaluation and measurement

Governance in KM implies and demands deliberate consideration of the strategies in place in the long and in the medium term. KM governance processes incorporate evaluation and measurement in order to prove the value, to progress and to develop existing practices. Governance mechanisms must maintain a collective knowledge of trends in industry, technology, and the corporate structural and social environment.

Evaluation looks at both successes of and obstacles to the implementation of a KM strategy. Evaluation of successes must take into account the contribution made to the aims and objectives of the organization. Where the successes make a contribution then they should be continued. Where they do not make a contribution then consideration should be given to their continuance. Evaluation of obstacles to the KM strategy implies the capacity to question why the risk may not have been foreseen and therefore managed. . Evaluation of obstacles must take into account the barriers they create for the aims and objectives of the organization. Where this is the case then can these ends be achieved utilizing an alternative solution or method?

There are a number of criterion currently used to establish the return on investment for KM strategies: Leibowitz and Wright(1999)look at human capital growth, Sveiby (1997) uses intangible assets, some use the Balanced Scorecard ((Kaplan & Norton, 1996) with a number of measures including financial, growth, customers and internal business processes. Probst, Raub, and Romhardt, (2000) look at the normative, operational and strategic goals of the strategy to see if they are being met. Other common techniques include simple measures of staff retention or in improvement of “product to market” delivered on time, in quantity and quality. If these are evident and are the only variance from usual practice, then the strategy is seen as successful.

A KM governance framework

KM literature deals with the need for alignment of strategy with organizational aims and objectives, and for leadership of that strategy. This process is supported by information and communications technology (ICT) and operates in the organizational context of the corporate governance principles. There is an explicit link between the market and the organization in its aims and objectives that lead to governance processes.

The governance framework presents the functions of KM as supporting the aims, objectives and governance processes of the organization in the context of the broader environment of its external stakeholders which includes its customers and consultants and the regulatory environment. The KM strategy is developed by KM leaders in the planning of a process of identification, acquisition, development, sharing and distribution, utilization and finally retention of knowledge (Probst et al., 2000; Tiwana, 2002). The practice of KM implementation follows with the execution of a course of action that is intended to fulfil the aims and objectives of the plan in order to support the aims and objectives of the organization as a whole. The relationship between the KM strategy and the KM implementation is in theory a unidirectional one where implementation is merely the following through of the strategic plan. In practice this relationship may be more interactive, as those responsible for the implementation may also have a level of responsibility for the development of the strategic plan. KM governance is the layer exercising the authority processes and principles that act as a framework for examination, regulation, supervision and revision of KM strategies.

The KM strategy is developed by KM practitioners. The interaction between the development of strategy and governance is twofold. The governance process develops the principles and rationale for the impetus and momentum of the strategy, the management of risks, the financial control and accountability for stakeholder response. The governance process also evaluates KM activity according to previously defined and articulated performance measures.

The KM strategy is implemented or operationalized by KM staff and supported and promoted by champions in the organization. The implementation of the strategy is evaluated according to the criterion established by the governance body. Evaluation will also take into account changes in product and customers, changes in the regulatory environment, inputs from consultants or industry partners. It reflects the aims and objectives of the organization that it serves. The KM strategy is planned and may be revised as the need arises. The evaluation data flows from the KM implementation to the governance body which then feeds its decision/s back to the redevelopment of the strategy.

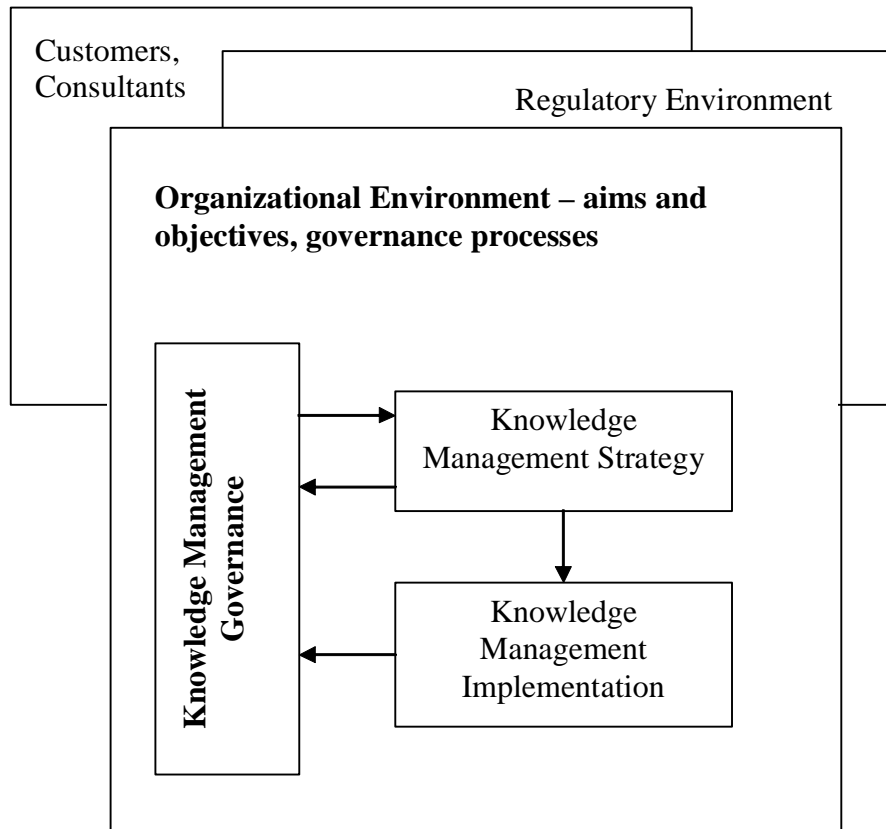


Figure 1 Framework for KM governance

Companies that rely on or utilize KM for the transfer of strategic knowledge should work to establish KM governance committees including stakeholder representation. There are two fundamental objectives in this governance process. These are:

- to ensure that KM delivers value to the identified stakeholders. This value is derived from the value proposition of the organization and the organizational strategies put in place to achieve those ends;
- to control and to minimise the risk to the KM strategy. The strategy must be capable of adjustments required in response to perceived flaws in its capacity to effectively transfer knowledge. A KM strategy is not a single prescribed formula that can ‘fit’ all organizations or even ‘fit’ organizations within a particular industry segment.

KM governance can meet the above objectives through:

- sponsorship of an effective understanding of the role and potential of KM within the organization;
- the alignment of KM with the value proposition and strategy of the organization;
- regular evaluation review, approval and monitoring of KM investments in infrastructure and in human resources;
- the management of the risks of KM.

In acknowledging knowledge as the organization’s strategic asset and differentiator, it can be seen that the ultimate responsibility of the KM governance process is to ensure

the governance of KM as a means of pursuing success in the implementation of a KM strategy in the organization.

Future trends

KM governance is currently the subject of extensive research that has built the model described. Future research possibilities may lie in looking in depth at the interrelationships between governance and stakeholders, in evaluation and measurement, in risk management techniques and in authority over infrastructure and investments.

The governance model described was developed from research undertaken with Australian and global organizations. Future research possibilities may lie in testing this model and developing others in other operating environments.

Conclusion

Governance processes operate to manage the risks of KM to acknowledge and contend with the cultural issues, structural obstacles and other relevant issues as they arise during the implementation and ongoing operation of that strategy. The management of these risks will assist in the resolution of such issues and in turn strengthen the strategies to manage knowledge that are employed within the organization. Acknowledging knowledge as the organization's strategic asset and competitive differentiator is not the ultimate responsibility of the governance process. The effective governance of KM may be a means of pursuing success. However governance of KM implies more than this. It implies and demands strategic thinking about the strategies in place for long term and medium term planning. Such strategies should not be regarded as linear in direction but incorporate feedback both in the positive and negative aspects of the KM strategy that will in turn modify, progress and develop existing plans and practices.

This article has outlined the theoretical framework of internal organizational governance and its application in strategies to manage organizational knowledge for the implementation of those strategies. Governance functions operate to ensure that KM delivers value to the identified stakeholders and provides a control mechanism to minimise risks to the successful implementation of a KM strategy. The governance framework given for these processes and practices may better enable an effective and coordinated outcome for KM strategies that ensures the delivery of anticipated benefits in an authorized and regulated manner.

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Definitions

Authority is an established power to enforce moral or legal decisions. Organizational authority is accountable for its actions. Authority is a right to demand and instruct subordinates. Authority may also be delegated or be derived from delegated control. The organization may mandate power to a role or position a group or individual in authority, or power may be assigned or sanctioned by consensus.

Evaluation is the assessment of the effectiveness of service delivery and the identification of obstacles or barriers to service delivery. Some means of evaluation include understanding the perceptions of improvement in the organization in the manner in which it formalizes knowledge processes, knowledge structures and underlying systems. These in turn will affect operations, products or services delivered. Another means of evaluation of the effectiveness of a KM strategy is through establishing increased awareness and participation in that strategy. The Balance Scorecard (1996, Kaplan and Norton) is a technique that considers these human issues.

Measurement is substantially a quantitative tool. It may rely on direct comparison of performance before and subsequent to the initiation and establishment of a KM strategy. The organization may choose to measure of its performance in market competitiveness and acceptance, it may look at the contribution of the KM strategy to financial benefits and viability. It can also measure contributions to and the growth in the volume of explicit knowledge content stored and used by staff. Some knowledge managers may regard the increase in the resources attached to the project as a measure of the acceptance and hence the understanding of the value of KM to their organization.

Organizational environment refers the aims and objectives of the organization in the context of the way in which it structures itself and its activities. The structure of the organization is the way in which the organization is arranged for the implementation of authority. Generally, this structure is either an hierarchical structure, a flat structure or a management matrix. An hierarchical structure typically shaped like a pyramid with power or control centralized in a CEO who has managers reporting back. These managers have subordinates who also exercise delegated authority over their subordinates. There may be several layers of authority and delegation depending on the size and complexity of the organization. Ultimately power and control lies in the CEO. A management matrix has a series of control mechanisms where the workforce may report to their direct superior, and additionally to one of a series of team leaders. This requires a sequence of devolved authorities and responsibilities. A flat organizational structure has devolved power and responsibilities without a cascading series of reporting structures.

Return on investment (ROI) is commonly used as an accounting term to indicate how well an organization has used its investment in resources. In a knowledge management context, ROI describes the return on both the human and financial capital invested in that strategy. Some measures may include sustainable growth, calculable efficiencies in product development cycles; improved decision-making; better ability initiate and integrate new employees; lower rates of staff turnover

reflecting improved employee morale; better ability to retain customers reflecting trust in employees' expertise

Risk management is a tactic to minimise the susceptibility of the KM strategy to risk and subsequent failure or ineffectiveness. Risk must be analysed to assess the potential exposure to the chance of human or infrastructural barriers. Example of these risks may include:

- management culture in the organisation that hinders KM,
- the philosophy of KM is not understood in the organisation and
- conflicts of organizational priorities
- the development of criterion for knowledge collection is clouded

Risk may also threaten operational or to financial elements of the strategy. Examples of risks to processes may include:

- an understanding of the knowledge types and artefacts associated with specific business functions
- current informal organic knowledge transfer strategies and systems
- risks associated with system development
- managing the changes and their implementation and additionally managing the expectations of staff and of executive management.